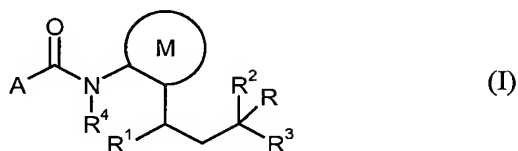


**Patent Claims**

1. Haloalkyl carboxamides of the formula (I)



5 in which

R stands for hydrogen or halogen,

R¹ stands for hydrogen or methyl,

R² stands for methyl, ethyl or C₁-C₄ haloalkyl with 1 to 9 fluorine, chlorine and/or bromine atoms,

10 R³ stands for halogen or C₁-C₄ haloalkyl with 1 to 9 fluorine, chlorine and/or bromine atoms,

R⁴ stands for hydrogen, C₁-C₈ alkyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈ cycloalkyl; C₁-C₆ haloalkyl, C₁-C₄ haloalkylthio, C₁-C₄ haloalkylsulfinyl, C₁-C₄ haloalkylsulfonyl, halo-C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈ halocycloalkyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case; formyl, formyl-C₁-C₃-alkyl, (C₁-C₃ alkyl)carbonyl-C₁-C₃-alkyl, (C₁-C₃ alkoxy)carbonyl-C₁-C₃-alkyl; halo-(C₁-C₃ alkyl)carbonyl-C₁-C₃-alkyl, halo-(C₁-C₃ alkoxy)carbonyl-C₁-C₃-alkyl with 1 to 13 fluorine, chlorine and/or bromine atoms in each case;

20 (C₁-C₈ alkyl)carbonyl, (C₁-C₈ alkoxy)carbonyl, (C₁-C₄-alkoxy-C₁-C₄-alkyl)carbonyl, (C₃-C₈ cycloalkyl)carbonyl; (C₁-C₆ haloalkyl)carbonyl, (C₁-C₆ haloalkoxy)carbonyl, (halo-C₁-C₄-alkoxy-C₁-C₄-alkyl)carbonyl, (C₃-C₈ halocycloalkyl)carbonyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case; or -C(=O)C(=O)R⁵, -CONR⁶R⁷ or -CH₂NR⁸R⁹,

25 R⁵ stands for hydrogen, C₁-C₈ alkyl, C₁-C₈ alkoxy, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈ cycloalkyl; C₁-C₆ haloalkyl, C₁-C₆ haloalkoxy, halo-C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈ halocycloalkyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case,

30 R⁶ and R⁷ stand independently of one another in each case for hydrogen, C₁-C₈ alkyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈ cycloalkyl; C₁-C₈ haloalkyl, halo-C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈ halocycloalkyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case,

R⁶ and R⁷, moreover, form a substituted, saturated heterocycle with 5 to 8 ring atoms together with the nitrogen atom to which they are bound, with single or multiple, the same or various substitution by halogen or C₁-C₄ alkyl, whereby the

heterocycle can contain 1 or 2 additional, non-adjacent hetero atoms constituted by oxygen, sulfur or NR<sup>10</sup>,

R<sup>8</sup> and R<sup>9</sup> stand independently of one another for hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl; C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>3</sub>-C<sub>8</sub> halocycloalkyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case,

R<sup>8</sup> and R<sup>9</sup>, moreover, form a substituted, saturated heterocycle with 5 to 8 ring atoms together with the nitrogen atom to which they are bound, with single or multiple, the same or various substitution by halogen or C<sub>1</sub>-C<sub>4</sub> alkyl, whereby the heterocycle can contain 1 or 2 additional, non-adjacent hetero atoms constituted by oxygen, sulfur or NR<sup>10</sup>,

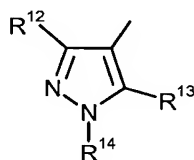
R<sup>10</sup> stands for hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl,

M stands in each case for a phenyl, pyridine or pyrimidine, pyridazine or pyrazine ring with a single substitution by R<sup>11</sup> or for a thiazole ring substituted by R<sup>11-A</sup>,

R<sup>11</sup> stands for hydrogen, fluorine, chlorine, methyl, isopropyl, methylthio or trifluoromethyl,

R<sup>11-A</sup> stands for hydrogen, methyl, methylthio or trifluoromethyl,

A stands for the group of the formula (A1)



(A1), in which

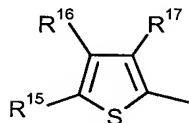
R<sup>12</sup> stands for hydrogen, cyano, halogen, nitro, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> alkylthio, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkoxy or C<sub>1</sub>-C<sub>4</sub> haloalkylthio, in each case with 1 to 5 halogen atoms, aminocarbonyl or aminocarbonyl-C<sub>1</sub>-C<sub>4</sub>-alkyl,

R<sup>13</sup> stands for hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy or C<sub>1</sub>-C<sub>4</sub> alkylthio,

R<sup>14</sup> stands for hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, hydroxy-C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, C<sub>1</sub>-C<sub>4</sub>-alkylthio-C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkylthio-C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl in each case with 1 to 5 halogen atoms, or phenyl,

or

A stands for the group of the formula (A2)



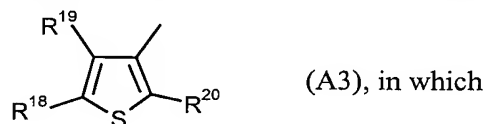
(A2), in which

$R^{15}$  and  $R^{16}$  stand independently of one another for hydrogen, halogen,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

$R^{17}$  stands for halogen, cyano or  $C_1$ - $C_4$  alkyl, or  $C_1$ - $C_4$  haloalkyl or  $C_1$ - $C_4$  haloalkoxy with 1 to 5 halogen atoms in each case,

5 or

A stands for the group of the formula (A3)



$R^{18}$  and  $R^{19}$  stand independently of one another for hydrogen, halogen,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

10  $R^{20}$  stands for hydrogen, halogen,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

or

A stands for the group of the formula (A4)



15  $R^{21}$  stands for hydrogen, halogen, hydroxy, cyano,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkoxy or  $C_1$ - $C_4$  haloalkylthio in each case with 1 to 5 halogen atoms,

or

A stands for the group of the formula (A5)



20

$R^{22}$  stands for halogen, hydroxy, cyano,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$  alkoxy,  $C_1$ - $C_4$  alkylthio,  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkylthio or  $C_1$ - $C_4$  haloalkoxy in each case with 1 to 5 halogen atoms,

25

$R^{23}$  stands for hydrogen, halogen, cyano,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$  alkoxy,  $C_1$ - $C_4$  alkylthio,  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkoxy in each case with 1 to 5 halogen atoms,  $C_1$ - $C_4$  alkylsulfinyl or  $C_1$ - $C_4$  alkylsulfonyl,

or

A stands for the group of the formula (A6)



$R^{24}$  stands for  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

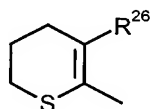
$R^{25}$  stands for  $C_1$ - $C_4$  alkyl,

$Q^1$  stands for S (sulfur), O (oxygen), SO,  $SO_2$  or  $CH_2$ ,

p stands for 0, 1 or 2, whereby  $R^{25}$  stands for identical or various groups if p is 2,

or

A stands for the group of the formula (A7)

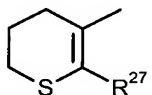


(A7), in which

$R^{26}$  stands for  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

or

A stands for the group of the formula (A8)

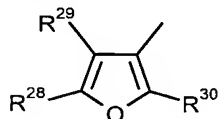


(A8), in which

$R^{27}$  stands for  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

or

A stands for the group of the formula (A9)



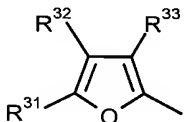
(A9), in which

$R^{28}$  and  $R^{29}$  stand independently of one another for hydrogen, halogen, amino,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

$R^{30}$  stands for hydrogen, halogen,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

or

A stands for the group of the formula (A10)



(A10), in which

$R^{31}$  and  $R^{32}$  stand independently of one another for hydrogen, halogen, amino, nitro,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

$R^{33}$  stands for hydrogen, halogen,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

or

A stands for the group of the formula (A11)



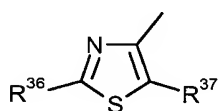
(A11), in which

$R^{34}$  stands for hydrogen, halogen, amino,  $C_1$ - $C_4$  alkylamino, di-( $C_1$ - $C_4$  alkyl)amino, cyano,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

5  $R^{35}$  stands for halogen,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

or

A stands for the group of the formula (A12)



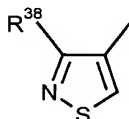
(A12), in which

10  $R^{36}$  stands for hydrogen, halogen, amino,  $C_1$ - $C_4$  alkylamino, di-( $C_1$ - $C_4$  alkyl)amino, cyano,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

$R^{37}$  stands for halogen,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

15 or

A stands for the group of the formula (A13)

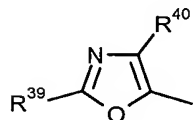


(A13), in which

$R^{38}$  stands for halogen,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

20 or

A stands for the group of the formula (A14)



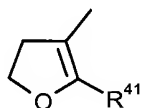
(A14), in which

$R^{39}$  stands for hydrogen or  $C_1$ - $C_4$  alkyl,

$R^{40}$  stands for halogen or  $C_1$ - $C_4$  alkyl,

25 or

A stands for the group of the formula (A15)

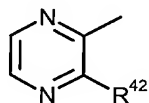


(A15), in which

$R^{41}$  stands for  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

or

A stands for the group of the formula (A16)

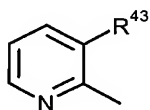


(A16), in which

$R^{42}$  stands for hydrogen, halogen,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

or

A stands for the group of the formula (A17)

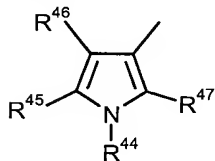


(A17), in which

$R^{43}$  stands for halogen, hydroxy,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$  alkoxy,  $C_1$ - $C_4$  alkylthio,  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkylthio or  $C_1$ - $C_4$  haloalkoxy with 1 to 5 halogen atoms in each case,

or

A stands for the group of the formula (A18)



(A18), in which

$R^{44}$  stands for hydrogen, cyano,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$  alkyl, hydroxy- $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$  alkylsulfonyl, di( $C_1$ - $C_4$  alkyl)aminosulfonyl,  $C_1$ - $C_6$  alkylcarbonyl or in each case possibly substituted phenylsulfonyl or benzoyl,

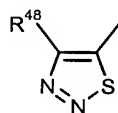
$R^{45}$  stands for hydrogen, halogen,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

$R^{46}$  stands for hydrogen, halogen, cyano,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

$R^{47}$  stands for hydrogen, halogen,  $C_1$ - $C_4$  alkyl or  $C_1$ - $C_4$  haloalkyl with 1 to 5 halogen atoms,

or

A stands for the group of the formula (A19)



(A19), in which

$R^{48}$  stands for  $C_1$ - $C_4$  alkyl.

2. Haloalkyl carboxamides of the formula (I) according to Claim 1, in which

5  $R$  stands for hydrogen, fluorine, chlorine or bromine,

$R^1$  stands for hydrogen or methyl,

$R^2$  stands for methyl, ethyl or in each case for methyl, ethyl, n- or isopropyl, n-, iso-, sec or tert-butyl with single or multiple, the same or various, substitution by fluorine, chlorine or bromine.

10  $R^3$  stands for fluorine, chlorine, bromine, iodine or in each case for methyl, ethyl, n- or isopropyl, n-, iso-, sec or tert-butyl with single or multiple, the same or various, substitution by fluorine, chlorine or bromine.

$R^4$  stands for hydrogen,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$  alkylsulfinyl,  $C_1$ - $C_4$  alkylsulfonyl,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_3$ - $C_6$  cycloalkyl;  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkylthio,  $C_1$ - $C_4$  haloalkylsulfinyl,  $C_1$ - $C_4$  haloalkylsulfonyl, halo- $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl,  $C_3$ - $C_8$  halocycloalkyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case; formyl, formyl- $C_1$ - $C_3$ -alkyl, ( $C_1$ - $C_3$  alkyl)carbonyl- $C_1$ - $C_3$ -alkyl, ( $C_1$ - $C_3$  alkoxy)carbonyl- $C_1$ - $C_3$ -alkyl; halo-( $C_1$ - $C_3$  alkyl)carbonyl- $C_1$ - $C_3$ -alkyl, halo-( $C_1$ - $C_3$  alkoxy)carbonyl- $C_1$ - $C_3$ -alkyl with 1 to 13 fluorine, chlorine and/or bromine atoms in each case;

20 ( $C_1$ - $C_6$  alkyl)carbonyl, ( $C_1$ - $C_4$  alkoxy)carbonyl, ( $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl)carbonyl, ( $C_3$ - $C_6$  cycloalkyl)carbonyl; ( $C_1$ - $C_4$  haloalkyl)carbonyl, ( $C_1$ - $C_4$  haloalkoxy)carbonyl, (halo- $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl)carbonyl, ( $C_3$ - $C_6$  halocycloalkyl)carbonyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case; or  $-C(=O)C(=O)R^5$ ,  $-CONR^6R^7$  or  $-CH_2NR^8R^9$ ,

25  $R^5$  stands for hydrogen,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_4$  alkoxy,  $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl,  $C_3$ - $C_6$  cycloalkyl;  $C_1$ - $C_4$  haloalkyl,  $C_1$ - $C_4$  haloalkoxy, halo- $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl,  $C_3$ - $C_6$  halocycloalkyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case,

30  $R^6$  and  $R^7$  stand independently of one another in each case for hydrogen,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl,  $C_3$ - $C_6$  cycloalkyl;  $C_1$ - $C_4$  haloalkyl, halo- $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl,  $C_3$ - $C_6$  halocycloalkyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case,

35  $R^6$  and  $R^7$ , moreover, form a substituted, saturated heterocycle with 5 to 8 ring atoms together with the nitrogen atom to which they are bound, with single or multiple, the same or various substitution by halogen or  $C_1$ - $C_4$  alkyl, whereby the

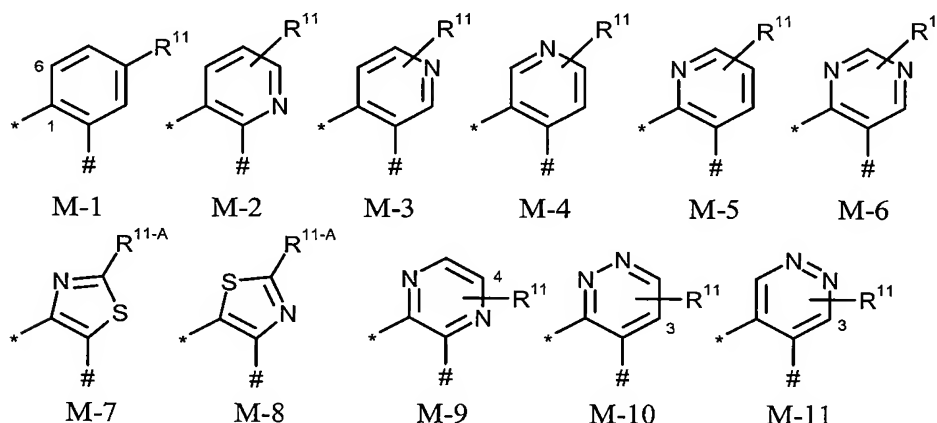
heterocycle can contain 1 or 2 additional, non-adjacent hetero atoms constituted by oxygen, sulfur or NR<sup>10</sup>,

R<sup>8</sup> and R<sup>9</sup> stand independently of one another for hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl; C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>3</sub>-C<sub>6</sub> halocycloalkyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case,

R<sup>8</sup> and R<sup>9</sup>, moreover, form a substituted, saturated heterocycle with 5 to 8 ring atoms together with the nitrogen atom to which they are bound, with single or multiple, the same or various substitution by halogen or C<sub>1</sub>-C<sub>4</sub> alkyl, whereby the heterocycle can contain 1 or 2 additional, non-adjacent hetero atoms constituted by oxygen, sulfur or NR<sup>10</sup>,

R<sup>10</sup> stands for hydrogen or C<sub>1</sub>-C<sub>4</sub> alkyl,

M stands for one of the following cyclics

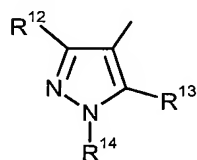


whereby the bond marked with an asterisk ("\*") is a link with the amide, and the bond marked with "#" is a link with the haloalkyl group,

R<sup>11</sup> stands for hydrogen, fluorine, chlorine, methyl or trifluoromethyl,

R<sup>11-A</sup> stands for hydrogen, methyl or trifluoromethyl,

A stands for the group of the formula (A1)



(A1), in which

R<sup>12</sup> stands for hydrogen, cyano, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, methoxy, ethoxy, methylthio, ethylthio, cyclopropyl, C<sub>1</sub>-C<sub>2</sub> haloalkyl, C<sub>1</sub>-C<sub>2</sub> haloalkoxy in each case with 1 to 5 fluorine, chlorine and/or bromine atoms, trifluoromethylthio, difluoromethylthio, aminocarbonyl, aminocarbonylmethyl or aminocarbonylethyl,

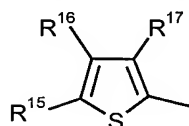


$R^{13}$  stands for hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, methoxy, ethoxy, methylthio or ethylthio,

$R^{14}$  stands for hydrogen, methyl, ethyl, n-propyl, isopropyl,  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms, hydroxymethyl, hydroxyethyl, cyclopropyl, cyclopentyl, cyclohexyl or phenyl,

or

A stands for the group of the formula (A2)



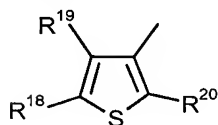
(A2), in which

$R^{15}$  and  $R^{16}$  stand independently of one another for hydrogen, fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

$R^{17}$  stands for fluorine, chlorine, bromine, cyano, methyl, ethyl,  $C_1$ - $C_2$  haloalkyl or  $C_1$ - $C_2$  haloalkoxy in each case with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A3)



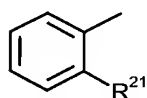
(A3), in which

$R^{18}$  and  $R^{19}$  stand independently of one another for hydrogen, fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

$R^{20}$  stands for hydrogen, fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A4)

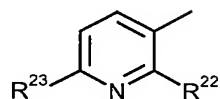


(A4), in which

$R^{21}$  stands for hydrogen, fluorine, chlorine, bromine, iodine, hydroxy, cyano,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_2$  haloalkyl,  $C_1$ - $C_2$  haloalkoxy or  $C_1$ - $C_2$  haloalkylthio in each case with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A5)



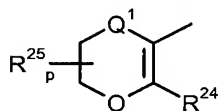
(A5), in which

$R^{22}$  stands for fluorine, chlorine, bromine, iodine, hydroxy, cyano,  $C_1$ - $C_4$  alkyl, methoxy, ethoxy, methylthio, ethylthio, difluoromethylthio, trifluoromethylthio,  $C_1$ - $C_2$  haloalkyl or  $C_1$ - $C_2$  haloalkoxy in each case with 1 to 5 fluorine, chlorine and/or bromine atoms,

$R^{23}$  stands for hydrogen, fluorine, chlorine, bromine, iodine, cyano,  $C_1$ - $C_4$  alkyl, methoxy, ethoxy, methylthio, ethylthio,  $C_1$ - $C_2$  haloalkyl or  $C_1$ - $C_2$  haloalkoxy in each case with 1 to 5 fluorine, chlorine and/or bromine atoms,  $C_1$ - $C_2$  alkylsulfinyl or  $C_1$ - $C_2$  alkylsulfonyl,

or

A stands for the group of the formula (A6)



(A6), in which

$R^{24}$  stands for methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

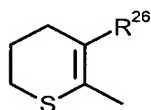
$R^{25}$  stands for methyl or ethyl,

$Q^1$  stands for S (sulfur),  $SO_2$  or  $CH_2$ ,

p stands for 0 or 1,

or

A stands for the group of the formula (A7)

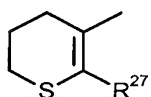


(A7), in which

$R^{26}$  stands for methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A8)

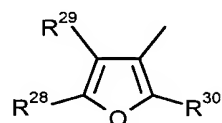


(A8), in which

$R^{27}$  stands for methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A9)



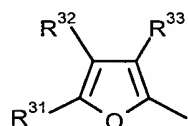
(A9), in which

$R^{28}$  and  $R^{29}$  stand independently of one another for hydrogen, fluorine, chlorine, bromine, amino, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

5  $R^{30}$  stands for hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A10)



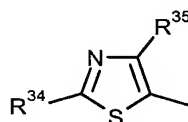
(A10), in which

10  $R^{31}$  and  $R^{32}$  stand independently of one another for hydrogen, fluorine, chlorine, bromine, amino, nitro, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

$R^{33}$  stands for hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

15 or

A stands for the group of the formula (A11)



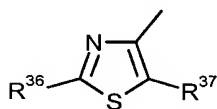
(A11), in which

20  $R^{34}$  stands for hydrogen, fluorine, chlorine, bromine, amino,  $C_1$ - $C_4$  alkylamino, di( $C_1$ - $C_4$  alkyl)amino, cyano, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

$R^{35}$  stands for fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A12)



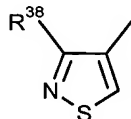
(A12), in which

25  $R^{36}$  stands for hydrogen, fluorine, chlorine, bromine, amino,  $C_1$ - $C_4$  alkylamino, di( $C_1$ - $C_4$  alkyl)amino, cyano, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

$R^{37}$  stands for fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A13)

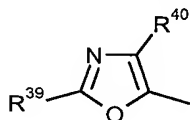


(A13), in which

$R^{38}$  stands for fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A14)



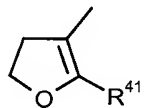
(A14), in which

$R^{39}$  stands for hydrogen, methyl or ethyl,

$R^{40}$  stands for fluorine, chlorine, bromine, methyl or ethyl,

or

A stands for the group of the formula (A15)

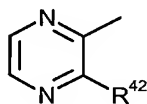


(A15), in which

$R^{41}$  stands for methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A16)

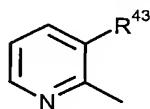


(A16), in which

$R^{42}$  stands for hydrogen, fluorine, chlorine, bromine, methyl, ethyl or  $C_1$ - $C_2$  haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A17)



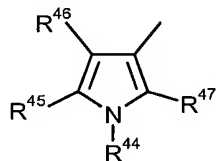
(A17), in which

$R^{43}$  stands for fluorine, chlorine, bromine, iodine, hydroxy,  $C_1$ - $C_4$  alkyl, methoxy, ethoxy, methylthio, ethylthio, difluoromethylthio,

trifluoromethylthio, C<sub>1</sub>-C<sub>2</sub> haloalkyl or C<sub>1</sub>-C<sub>2</sub> haloalkoxy in each case with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A18)



(A18), in which

R<sup>44</sup> stands for hydrogen, methyl, ethyl, C<sub>1</sub>-C<sub>2</sub> haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, hydroxymethyl, hydroxyethyl, methylsulfonyl or dimethylaminosulfonyl,

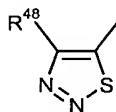
R<sup>45</sup> stands for hydrogen, fluorine, chlorine, bromine, methyl, ethyl or C<sub>1</sub>-C<sub>2</sub> haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

R<sup>46</sup> stands for hydrogen, fluorine, chlorine, bromine, iodine, cyano, methyl, ethyl, isopropyl or C<sub>1</sub>-C<sub>2</sub> haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

R<sup>47</sup> stands for hydrogen, fluorine, chlorine, bromine, methyl, ethyl or C<sub>1</sub>-C<sub>2</sub> haloalkyl with 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A stands for the group of the formula (A19)

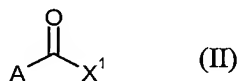


(A19), in which

R<sup>48</sup> stands for methyl, ethyl, n-propyl or isopropyl.

3. A process for synthesizing haloalkyl carboxamides of the formula (I) according to Claim 1, characterized in that

a) carboxylic acid derivatives the formula (II)

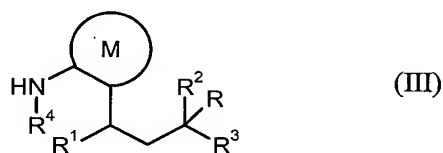


in which

A has the meanings specified in Claim 1 and

X<sup>1</sup> stands for halogen or hydroxy,

are reacted with aniline derivatives of the formula (III)



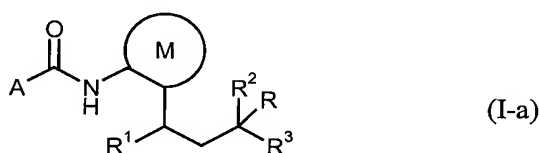
in which

R, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> and M have the meanings specified in Claim 1,

possibly in the presence of a catalyst, possibly in the presence a condensation agent, possibly in the presence of an acid binder and possibly in the presence of a diluent,

or

b) hexylcarboxanilides of the formula (I-a)



in which

R, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, M and A have the meanings specified in Claim 1,

are reacted with halides of the formula (IV)



in which

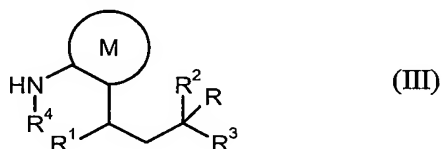
X<sup>2</sup> stands for chlorine, bromine or iodine,

R<sup>4-A</sup> stands for C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub> alkylsulfonyl, C<sub>1</sub>-C<sub>4</sub> alkoxy - C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl; C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkylthio, C<sub>1</sub>-C<sub>4</sub> haloalkylsulfinyl, C<sub>1</sub>-C<sub>4</sub> haloalkylsulfonyl, halo-C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub> halocycloalkyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case; formyl, formyl-C<sub>1</sub>-C<sub>3</sub>-alkyl, (C<sub>1</sub>-C<sub>3</sub> alkyl)carbonyl-C<sub>1</sub>-C<sub>3</sub>-alkyl, (C<sub>1</sub>-C<sub>3</sub> alkoxy)carbonyl-C<sub>1</sub>-C<sub>3</sub>-alkyl; halo-(C<sub>1</sub>-C<sub>3</sub> alkyl)carbonyl-C<sub>1</sub>-C<sub>3</sub>-alkyl, halo-(C<sub>1</sub>-C<sub>3</sub> alkoxy)carbonyl-C<sub>1</sub>-C<sub>3</sub>-alkyl with 1 to 13 fluorine, chlorine and/or bromine atoms in each case; (C<sub>1</sub>-C<sub>8</sub> alkyl)carbonyl, (C<sub>1</sub>-C<sub>8</sub> alkoxy)carbonyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl)carbonyl, (C<sub>3</sub>-C<sub>8</sub> cycloalkyl)carbonyl; (C<sub>1</sub>-C<sub>6</sub> haloalkyl)carbonyl, (C<sub>1</sub>-C<sub>6</sub> haloalkoxy)carbonyl, (halo-C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl)carbonyl, (C<sub>3</sub>-C<sub>8</sub> halocycloalkyl)carbonyl with 1 to 9 fluorine, chlorine and/or bromine atoms in each case; or -C(=O)C(=O)R<sup>5</sup>, -CONR<sup>6</sup>R<sup>7</sup> or -CH<sub>2</sub>NR<sup>8</sup>R<sup>9</sup>,

whereby R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup> and R<sup>9</sup> have the meanings specified in Claim 1,

in the presence of a base and in the presence of a dilution medium.

4. Media for combating undesirable microorganisms, characterized by containing at least one haloalkyl carboxamide of the formula (I) according to Claim 1 together with extenders and/or surface-active materials.
5. The use of haloalkyl carboxamides of the formula (I) according to Claim 1 to combat undesirable microorganisms.
6. Processes for combating undesired microorganisms, characterized in that haloalkyl carboxamides of the formula (I) are applied to the microorganisms and/or their environment in accordance with Claim 1.
7. Processes for synthesizing materials to combat undesired microorganisms, characterized in that haloalkyl carboxamides of the formula (I) are mixed with extenders and/or surface-active materials according to Claim 1.
8. Aniline derivatives of the formula (III)



in which R, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> and M have the meanings specified in Claim 1.